

The Criterion A Problem Revisited: Controversies and Challenges in Defining and Measuring Psychological Trauma

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The Criterion A problem in the field of traumatic stress refers to the stressor criterion for posttraumatic stress disorder (PTSD) and involves a number of fundamental issues regarding the definition and measurement of psychological trauma. These issues first emerged with the introduction of PTSD as a diagnostic category in the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III; American Psychiatric Association, 1980) and continue to generate considerable controversy. In this article, the authors provide an update on the Criterion A problem, with particular emphasis on the evolution of the DSM definition of the stressor criterion and the ongoing debate regarding broad versus narrow conceptualizations of traumatic events.

The introduction of posttraumatic stress disorder (PTSD) in the *Diagnostic and Statistical Manual of Mental Disorders, Third Edition* (DSM-III; American Psychiatric Association [APA], 1980) fostered a remarkably sustained and productive period of the scientific study of psychological trauma. Posttraumatic stress disorder has served as a unifying construct, allowing different groups of clinical investigators focused on seemingly disparate trauma types, such as combat, sexual assault, and natural disaster, to recognize commonalities in their work regarding the core aspects of psychological trauma and its devastating aftermath. Posttraumatic stress disorder has inspired a voluminous clinical and empirical literature and has been the focal point for the field of traumatic stress. However, it

has also been the subject of considerable debate, and critics have questioned most of the core assumptions underlying the disorder (Rosen, 2004).

Not surprisingly, because of the central role of trauma exposure as the presumptive primary etiological factor for PTSD, some of the most heated debate has involved Criterion A, the stressor criterion for PTSD (Breslau, 1990; Breslau & Davis, 1987; Davidson & Foa, 1991; Green, 1993; Kilpatrick et al., 1998; March, 1993; Solomon & Canino, 1990; Sutker, Uddo-Crane, & Allain, 1991). The basis of this debate, the Criterion A problem, encompasses a number of fundamental issues regarding the nature of trauma and its link to PTSD and centers on three main questions: How broadly or narrowly should trauma be

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defined? Can trauma be measured reliably and validly? What is the relationship between trauma and PTSD? In this article, we focus primarily on the first two of these questions.

DEFINING TRAUMA

The Evolution of Criterion A

Achieving a consensus definition of trauma is essential for progress in the field of traumatic stress. However, creating an all-purpose, general definition has proven remarkably difficult. Stressors vary along a number of dimensions, including magnitude (which itself varies on a number of dimensions, e.g., life threat, threat of harm, interpersonal loss; cf. Green, 1993), complexity, frequency, duration, predictability, and controllability. At the extremes, i.e., catastrophes versus minor hassles, different stressors may seem discrete and qualitatively distinct, but there is a continuum of stressor severity and there are no crisp boundaries demarcating ordinary stressors from traumatic stressors. Further, perception of an event as stressful depends on subjective appraisal, making it difficult to define stressors objectively, and independent of personal meaning making.

Since the inception of PTSD, the definition of a trauma in Criterion A has been the standard for the field. So much has been written and so many different conclusions have been reached about the various versions of Criterion A that a close examination of them is warranted. The actual criterion language and relevant passages from the accompanying text for *DSM-III*, *DSM-III-R* (APA, 1987), and *DSM-IV* (APA, 1994), are provided in Tables 1–3.

Several things can be gleaned from inspecting these definitions. First, many of the concerns discussed below regarding Criterion A are based on the criterion language per se. However, the accompanying text explicates the somewhat terse and ambiguous criterion language, clarifying the intent of the definition. Therefore, a full understanding of the *DSM* definition of a trauma requires consideration of both the criterion language and the text. Second, although the criterion language itself has evolved considerably, the underlying conceptualization of a traumatic event has remained stable. Third, the evolution of Criterion A has been a gradual process; the potential for a broad versus a narrow conceptualization has existed all along and did not emerge abruptly in *DSM-IV*.

The original Criterion A in *DSM-III* is brief and vague and has been much criticized. There are two key descriptors

Table 1. Criterion A and Accompanying Text in *DSM-III*

Criterion A	
Existence of a <u>recognizable stressor</u> that would evoke significant symptoms of distress in almost everyone.	
	Text
1.1. . . . a psychologically traumatic event that is <u>generally outside the range of usual human experience</u> .	
1.2. The stressor. . . <u>would evoke significant symptoms of distress in most people</u> , and is generally outside the range of such common experiences as simple bereavement, chronic illness, business losses, or marital conflict.	
1.3. The trauma may be experienced alone (rape or assault) or in the company of groups of people (military combat). Stressors producing this disorder include natural disasters (floods, earthquakes), accidental man-made disasters (car accidents with serious physical injury, airplane crashes, large fires), or deliberate man-made disasters (bombing, torture, death camps).	
1.4. Some stressors frequently produce the disorder (e.g., torture), and others produce it only occasionally (e.g., car accidents). Frequently there is a concomitant physical component of the trauma, which may even involve direct damage to the central nervous system (e.g., malnutrition, head trauma). The disorder is apparently more severe and longer lasting when the stressor is of human design.	
1.5. In Adjustment Disorder, the stressor is usually less severe and within the range of common experience; and the characteristic symptoms of Post-traumatic Stress Disorder, such as reexperiencing the trauma, are absent.	

Note. Emphasis and numbering of text components added. *DSM-III* = *Diagnostic and Statistical Manual of Mental Disorders, Third Edition* (American Psychiatric Association, 1980). Reprinted with permission.

Table 2. Criterion A and Accompanying Text in *DSM-III-R*

Criterion A	
The person has experienced an event that is <u>outside the range of usual human experience</u> and that <u>would be markedly distressing to almost anyone, e.g., serious threat to one's life or physical integrity; serious threat or harm to one's children, spouse, or other close relatives and friends; sudden destruction of one's home or community; or seeing another person who has recently been, or is being, seriously injured or killed as the result of an accident or physical violence.</u>	
Text	
2.1. . . . a psychologically distressing event that is <u>outside the range of usual human experience</u> (i.e., outside the range of such common experiences as simple bereavement, chronic illness, business losses, and marital conflict).	
2.2. The stressor producing this syndrome would be <u>markedly distressing to almost anyone</u> , and <u>is usually experienced with intense fear, terror, and helplessness.</u>	
2.3. The most common traumata involve either a <u>serious threat to one's life or physical integrity; a serious threat or harm to one's children, spouse, or other close relatives and friends; sudden destruction of one's home or community; or seeing another person who has recently been, or is being, seriously injured or killed as the result of an accident or physical violence.</u> In some cases the trauma may be <u>learning about a serious threat or harm to a close friend or relative, e.g., that one's child has been kidnapped, tortured, or killed.</u>	
2.4. The trauma may be experienced alone (e.g., rape or assault) or in the company of groups of people (e.g., military combat). Stressors producing this disorder include natural disasters (e.g., floods, earthquakes), accidental disasters (e.g., car accidents with serious physical injury, airplane crashes, large fires, collapse of physical structures), or deliberately caused disasters (e.g., bombing, torture, death camps).	
2.5. Some stressors frequently produce the disorder (e.g., torture), and others produce it only occasionally (e.g., natural disasters or car accidents). Sometimes there is a concomitant physical component of the trauma, which may even involve direct damage to the central nervous system (e.g., malnutrition, head injury). The disorder is apparently more severe and longer lasting when the stressor is of human design.	
2.6. In Adjustment Disorder the stressor is usually less severe and within the range of common experience; and the characteristic symptoms of Post-traumatic Stress Disorder, such as reexperiencing the trauma, are absent.	

Note. Emphasis and numbering of text components added. *DSM-III - R* = *Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised* (American Psychiatric Association, 1987). Reprinted with permission.

of a traumatic event ("outside the range of usual human experience," and "would evoke significant symptoms of distress in almost everyone"), one in the criterion language and the other in the text (§ 1.1). One criticism is that this definition refers primarily to the frequency of stressors, i.e., that events are traumatic because they are statistically rare. If that were the case, it would not be a useful distinction. Epidemiologic studies have shown that traumatic events occur far more often than previously thought, and for some individuals in certain situations (e.g., combat, domestic violence, emergency response) exposure to trauma is a daily occurrence. Further, as Herman (1992) argued:

Traumatic events are extraordinary, not because they occur rarely, but rather because they overwhelm the

ordinary human adaptations to life. Unlike commonplace misfortunes, traumatic events generally involve threats to life or bodily integrity, or a close personal encounter with violence and death. They confront human beings with the extremities of helplessness and terror, and evoke the responses of catastrophe. (p. 33)

However, the *DSM-III* definition arguably refers more to the magnitude of stressors than their frequency. If its authors meant to emphasize frequency, they could have simply said "rare" or "infrequent." But the choice of the specific phrasing "outside the range of usual human experience" together with examples in the text of both qualifying and nonqualifying events, implies that stressors were

Table 3. Criterion A and Accompanying Text in *DSM-IV*

Criterion A
<p>The person has been exposed to a traumatic event in which both of the following were present:</p> <p>(1) the person <u>experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others.</u></p> <p>(2) the person's response involved <u>intense fear, helplessness, or horror.</u> Note: In children, this may be expressed instead by <u>disorganized or agitated behavior.</u></p>
Text
<p>3.1. . . . an extreme traumatic stressor involving direct personal experience of an event that involves <u>actual or threatened death or serious injury, or other threat to one's physical integrity; or witnessing an event that involves death, injury, or a threat to the physical integrity of another person; or learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate</u> (Criterion A1).</p> <p>3.2. The person's response to the event must involve intense fear, helplessness, or horror (or in children, the response must involve disorganized or agitated behavior) (Criterion A2).</p> <p>3.3. Traumatic events that are experienced directly include, but are not limited to, military combat, violent personal assault (sexual assault, physical attack, robbery, mugging), being kidnapped, being taken hostage, terrorist attack, torture, incarceration as a prisoner of war or in a concentration camp, natural or manmade disasters, severe automobile accidents, or being diagnosed with a life-threatening illness. For children, sexually traumatic events may include <u>developmentally inappropriate sexual experiences without threatened or actual violence or injury.</u> Witnessed events include, but are not limited to, observing the serious injury or unnatural death of another person due to violent assault, accident, war, or disaster or unexpectedly witnessing a dead body or body parts. Events experienced by others that are learned about include, but are not limited to, violent personal assault, serious accident, or serious injury experienced by a family member or a close friend; <u>learning about the sudden, unexpected death of a family member or a close friend; or learning that one's child has a life-threatening disease.</u></p> <p>3.4. The disorder may be especially severe or long lasting when the stressor is of human design (e.g., torture, rape). The likelihood of developing this disorder may increase as the intensity and physical proximity to the stressor increase.</p> <p>3.5. In Posttraumatic Stress Disorder, the stressor must be of an extreme (i.e., life-threatening) nature. In contrast, in Adjustment Disorder, the stressor can be of any severity. The diagnosis of Adjustment Disorder is appropriate both for situations in which the response to an extreme stressor does not meet the criteria for Posttraumatic Stress Disorder (or another specific mental disorder) and for situations in which the symptom pattern of Posttraumatic Stress Disorder <u>occurs in response to a stressor that is not extreme</u> (e.g., spouse leaving, being fired).</p>

Note. Emphasis and numbering of text components added. *DSM-IV* = *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (American Psychiatric Association, 1994). Reprinted with permission.

to be considered traumatic primarily because they are of extreme or catastrophic severity. This interpretation is further supported by the fact that *DSM-III* directed clinicians to rate and record the stressor on Axis IV, presumably whereby events rated in the highest two or three categories (5 = severe, 6 = extreme, 7 = catastrophic) would qualify for Criterion A.

A second criticism is that *DSM-III* provides little practical guidance for identifying an event as traumatic. As Davidson and Foa (1991) pointed out, there are no normative data to help clinicians determine what would be outside the range of usual experience or markedly distress-

ing to almost anyone, nor is there any evidence that such judgments can be made reliably. The Axis IV rating scale anchors and examples help somewhat, but still require clinical judgment based on limited guidelines.

A third criticism is that Criterion A in *DSM-III* confounds objective and subjective aspects, especially with regard to the requirement "would evoke significant symptoms of distress in almost everyone." However, although this phrase incorporates a subjective response element, its intent is actually the opposite. By invoking a normative standard, it tries to circumvent reliance on an individual's idiosyncratic reaction as the basis for classifying an event

as a trauma. Further, it tries to prevent “victim blaming,” that is, attributing an individual’s symptoms to excessive vulnerability. Thus, from this perspective individuals who develop PTSD do so primarily because of the catastrophic nature of the stressor, not because they lack sufficient fortitude. These intentions are made explicit in the directions for the use of Axis IV in *DSM-III*:

This rating should be based on the clinician’s assessment of the stress an “average” person in similar circumstances and with similar sociocultural values would experience from the particular psychosocial stressor. . . . Even though a specific stressor may have greater impact on an individual who is especially vulnerable or has certain internal conflicts, the rating should be based on the severity of the stressor itself, not on the individual’s vulnerability to the particular stressor. (p. 26)

Several other points are worth noting regarding the *DSM-III* accompanying text. First, the examples offered (§ 1.3) rely on category labels for different types of traumatic events, rather than specifying the common underlying dimensions across events. Second, there is explicit acknowledgment that events vary in their capacity to produce PTSD (§ 1.4), which has been confirmed in epidemiologic studies (Breslau et al., 1998; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). Last, PTSD is distinguished from adjustment disorder in that adjustment disorder involves a less severe stressor and the absence of characteristic PTSD symptoms (§ 1.5). The problem with this distinction is that it does not provide diagnostic coverage for those who might develop PTSD-like symptoms in response to less severe stressors that do not meet Criterion A.

The *DSM-III-R* revision of Criterion A retained the core elements from *DSM-III* and added several significant new elements. First, the key phrases “outside the range of usual human experience” (with the latter slightly modified) and “markedly distressing to almost anyone” were retained and both were included in the criterion language. Second, a list of examples of qualifying events was added. These examples are a clear departure from the event typology approach in *DSM-III*

(§ 1.3) and illustrate instead some of the underlying dimensions that make events traumatic (Green, 1993). Third, the text (§ 2.2) provides more specific information regarding the type and severity of distress evoked, stating that the event “is usually experienced with intense fear, terror, and helplessness.” Fourth, the text (§ 2.3) includes a new category of qualifying events involving indirect exposure, i.e., “learning about a serious threat or harm to a close friend or relative.”

The *DSM-IV* revision of Criterion A also retained many elements from the previous versions and added several new elements. First, the most obvious structural change was the creation of a two-part definition of a traumatic event. Criterion A1 specifies the type of exposure (“experienced, witnessed, or was confronted with”) and the nature of the event (“actual or threatened death or serious injury, or a threat to the physical integrity of self or others”), and Criterion A2 requires a response involving “intense fear, helplessness, or horror.” All of the elements of both Criteria A1 and A2 appeared in *DSM-III-R*, although “seeing” became “witnessed,” “learning about” (§ 2.3) became “confronted with,” and all three types of exposure were grouped into Criterion A1. Further, “fear, terror and helplessness” (§ 2.2) became “fear, helplessness, or horror,” and the distress response became a requirement in Criterion A2.

Second, an important conceptual modification occurred regarding the distress response in Criterion A2. Instead of being linked to a normative standard as in previous versions, the focus was changed to the response of the individual exposed to the event. This led to concerns that *DSM-IV* shifted away from an objective standard to a subjective standard, with the implication that a trauma would thus be defined as any event an individual found intensely distressing. This would be a legitimate concern if traumatic events were defined solely by Criterion A2. However, Criterion A in *DSM-IV* is a conjunctive rule, with Criteria A1 and A2 as joint requirements, and therefore Criterion A2 can only constrain the number of Criterion A1 events (referred to hereafter as potentially traumatic events [PTEs]) that meet the full definition of Criterion A (referred to hereafter as traumatic events [TEs]).

Third, the text provides a longer list of examples of PTEs (§ 3.3). Notable additions include “being diagnosed with a life-threatening illness”; “developmentally inappropriate sexual experiences without threatened or actual violence or injury”; “learning about the sudden, unexpected death of a family member or a close friend”; and “learning that one’s child has a life-threatening disease.” Although not listed specifically in *DSM-III* or *DSM-III-R*, the case could be made that each of these events would have met previous versions of Criterion A. Nonetheless, as discussed below, inclusion of such events has been seen by some as substantially broadening the definition of a trauma.

Last, the text regarding differential diagnosis was substantially revised (§ 3.5). The most noteworthy change was the recognition that some individuals may develop symptoms of PTSD in response to a low magnitude stressor that does not meet Criterion A. Importantly, the text specifies that in such cases the appropriate diagnosis is adjustment disorder, not PTSD. This new guideline increases diagnostic coverage by explicitly filling a gap found in previous versions of *DSM*. More significantly, though, it clarifies that a diagnosis of PTSD is only to be made when the stressor satisfies Criterion A, even if an individual experiences some of the characteristic symptoms of the disorder.

Broad Versus Narrow Definitions of Trauma

In some respects the *DSM-IV* version of Criterion A could be seen as more restrictive than previous versions, given its explicit focus on life threat, the joint requirement of Criteria A1 and A2, the more explicit instructions regarding the differential diagnosis of PTSD and adjustment disorder, and the repeated reminders in the text that the event must be extreme, where extreme is equated with life-threatening. However, critics have expressed serious concerns that it actually represents an overly broad conceptualization of trauma, or what McNally (2004) has labeled “conceptual bracket creep” (p. 3). As McNally notes, this is a crucial issue because an excessively broad definition could hinder research by increasing heterogeneity of participants and could lead to inappropriate application of the concepts of trauma and PTSD in forensic settings.

Two large-scale studies have examined the impact of adopting broad versus narrow definitions of Criterion A. First, Kilpatrick et al. (1998) evaluated five different definitions of Criterion A, including a nonrestrictive definition, which allowed any event to qualify, and definitions corresponding to Criterion A in *DSM-III-R* and *DSM-IV*. They did not report prevalence rates of exposure to traumatic events based on the five definitions, so the impact on the prevalence of trauma exposure cannot be evaluated. However, they reported that the various definitions of Criterion A had little impact on the prevalence of PTSD, concluding that “. . . the fact that different criterion A definitions produced similar PTSD rates suggests that the decision concerning which criterion A to select for *DSM-IV* can be made on the basis of instructional utility and clarity to the mental health field rather than on the basis of what happens to PTSD prevalence with different criterion A definitions” (p. 831).

Second, Breslau and Kessler (2001) compared the two-part definition of Criterion A in *DSM-IV* to the *DSM-III-R* definition. The main analyses involved a list of 19 stressors considered to meet Criterion A1 in *DSM-IV*. Of this list only 14 stressors were considered to meet Criterion A in *DSM-III-R*, whereas the other five (learning about the sudden unexpected death of a loved one; or learning that a close relative was sexually assaulted, attacked, experienced a car accident, or experienced some other type of accident) were considered to represent the expanded *DSM-IV* definition. They found that the five events representing an expanded definition accounted for a 59.2% increase in the number of events reported, from 270 to 430 per 100 persons. When Criterion A2 was added as a requirement, this increase was substantially attenuated, but the two-part definition still resulted in a 22% increase in exposure to qualifying events. Further, of all the cases of PTSD diagnosed in the sample, 37.8% were attributable to the five events in the expanded definition. Notably, as discussed below, Criterion A2 had little impact on the prevalence of PTSD because Criterion A1 events that did not also meet Criterion A2 seldom met the rest of the PTSD criteria. Breslau and Kessler concluded that Criterion A in *DSM-IV* is a broader definition that results in increased

prevalence estimates of both exposure to traumatic events and PTSD.

Given the strikingly dissimilar conclusions reached by these two studies, it is important to consider what might account for the disparity. Several methodological factors may have played a role, including differences in sampling, instrumentation, selection of index event, and diagnostic rule. In our view, the key difference involves the diagnostic rule. Kilpatrick et al. (1998) used two structured interviews for PTSD and required that both concur that a symptom was present before counting it toward a diagnosis. This conjunctive requirement set a stringent diagnostic threshold that may have increased the specificity of the symptom clusters (Criteria B–D) to such a degree that Criterion A became irrelevant in determining a diagnosis of PTSD. Broader definitions of Criterion A may have allowed more events to be considered for evaluation of PTSD symptoms, but the increased specificity of the diagnostic rule may have prevented increased prevalence of a PTSD diagnosis.

Other differences may have contributed as well. For example, for one of their two interviews Kilpatrick et al. (1998) did not require respondents to link symptoms to a specific event, whereas Breslau and Kessler (2001) did require such a link. Further, when respondents reported more than one potentially traumatic event, Breslau and Kessler randomly selected an event to use as the basis for PTSD assessment to obtain a representative sample of events and avoid the bias involved in using a worst event.

Because of the methodological differences, it is not possible to directly compare the results of these two studies, and more research is needed to resolve the discrepancies between them. With respect to the issue of bracket creep, the fact that Kilpatrick et al. (1998) found that varying the definition of a traumatic event had little impact on estimates of the prevalence of PTSD is somewhat reassuring, although again, they used a conservative diagnostic rule that may have mitigated any potential impact of broad versus narrow versions of Criterion A. However, the Breslau and Kessler (2001) study provides the most direct and rigorous evaluation to date of the two-part *DSM-IV* version of Criterion A, and their findings clearly demon-

strate that including more events as PTEs leads to increased prevalence of both exposure to TEs and diagnosis of PTSD.

Several points are worth noting about these two studies and the issue of how broadly trauma should be defined. First, as noted earlier, we believe that the potential for a broader definition did not emerge abruptly with *DSM-IV*, but has existed explicitly since *DSM-III-R*, if both the criterion language and text are considered, and arguably has existed largely since *DSM-III*. Accordingly, in our judgment each of the five events that Breslau and Kessler (2001) considered to represent an expanded *DSM-IV* definition of a trauma would meet Criterion A in *DSM-III-R*, if not in *DSM-III* as well. Thus, the Breslau and Kessler study demonstrates that a broader versus a narrower definition of Criterion A results in increased estimates of PTSD prevalence, and in that sense is relevant to the general issue of how broadly trauma should be defined. However, because we do not agree that the five events in question represent an expanded definition, we do not see their study as a directly relevant critique of Criterion A in *DSM-IV*.

Second, on the other hand, and somewhat ironically, the potential for a broader definition of trauma, based on Criterion A in *DSM-IV* and recent discussion in the literature, is even greater than Breslau and Kessler (2001) suggest. Although their list of 19 PTEs is reasonably comprehensive, it is not exhaustive of the *DSM-IV* definition of Criterion A1. Other PTEs could have been included (e.g., indirect exposure to other events; events involving any loved one, not just a close relative), which of course would have further increased the prevalence at least of PTE exposure, if not the prevalence of TEs and PTSD. Further, Breslau and Kessler followed the *DSM-IV* definition of Criterion A2, limiting the qualifying emotional responses to fear, helplessness, and horror. However, a growing number of investigators have argued that the current Criterion A2 is too narrowly defined and should be expanded to include other heightened negative emotions (e.g., anger, shame, grief) and diminished emotional responses such as numbing, shock, or dissociation (cf. Brewin, Andrews, & Rose, 2000; Brunet et al., 2001; Roemer, Orsillo, Borkovec, &

Litz, 1998). This would increase the prevalence of TE exposure, if not the prevalence of PTSD.

Third, we do not view all of this broadening, no matter which version of Criterion A it is attributed to, as excessive or at odds with the original conceptualization of psychological trauma. For example, in Breslau and Kessler (2001), with regard to the five events included in their expanded definition, most of the increased prevalence of PTE exposure and PTSD was attributable to sudden unexpected death of a loved one (SUD). Sudden unexpected death of a loved one also was associated with the highest rate of A2 responding among these five events. Similarly, Kilpatrick et al. (1998) noted that of the relatively few who developed PTSD in response to a low magnitude event, most did so following a SUD. Further, Breslau et al. (1998) found that a SUD was the most commonly reported index event among those with PTSD, accounting for 31.1% of all cases of PTSD. The conditional probability of PTSD following a SUD was moderate (14.3%), and substantially lower than that for assaultive violence (20.9%), but this moderate risk combined with a high prevalence (60%) led Breslau et al. to conclude that SUD was “the single most important trauma as a cause of PTSD” (p. 628).

These findings are consistent with the conceptualization of life threat as well as uncontrollability and unpredictability (Foa, Zinbarg, & Rothbaum, 1992) as key aspects of psychological trauma. Thus, it seems to us appropriate to consider SUD as a PTE. However, as with many other types of traumatic events the definition of a SUD is ambiguous and potentially difficult to apply in some cases. The intent of the definition is relatively straightforward, i.e., to distinguish between different types of death and loss and recognize that some are so abrupt and shocking that they should be considered traumatic stressors capable of eliciting PTSD symptoms above and beyond normal grief responses. Nonetheless, this requires a judgment as to whether the death of a loved one was sufficiently sudden and unexpected to qualify as a PTE, which raises a concern about an overly broad conceptualization of SUD, whereby essentially normative deaths are classified as PTEs.

These points notwithstanding, we do see several sources of ambiguity in *DSM-IV* Criterion A that could lead to

what we would consider excessive broadening of the definition of a trauma. These include the phrases “confronted with,” “threat to physical integrity,” and “developmentally inappropriate sexual experiences,” which is the most salient exception to the life threat/serious injury conceptualization. We appreciate the intent behind such phrases, and recognize the importance and difficulty of the classification tasks they were designed to address. We view them as a part of an effort to articulate key elements of trauma exposure and clarify the boundaries of Criterion A by providing coverage for the full range of events that might be considered traumatic. As long as they are interpreted and applied in the context of the rest of Criterion A and the spirit of the underlying conceptualization of trauma, they appear to be a useful addition; their vagueness may be seen as an asset in that it affords clinicians sufficient flexibility to consider a wide variety of stressors as potentially traumatic events.

Nonetheless, the vagueness of these phrases also carries with it the significant potential downside of bracket creep, and we share McNally’s (2004) concern that these phrases could be used to stretch the definition of trauma well beyond its original connotation and justify the designation of even relatively minor stressors as traumatic. We are opposed to such a trend and to its logical extension, i.e., eliminating Criterion A altogether and allowing any event to qualify as a precipitating stressor for PTSD as long as it triggered the characteristic syndrome. Despite the inherent ambiguity in defining trauma and the difficulty in achieving a consensus definition within the field, we believe it is essential to set a threshold of stressor severity as part of the diagnostic criteria for PTSD. Doing otherwise would result in a substantial departure from the original conceptualization of PTSD and risk trivializing the suffering of those exposed to catastrophic life events.

Further, setting a threshold of stressor severity does not constrain further research in any way. Clearly more studies are needed in which a wide variety of stressors is examined with respect to their ability to elicit PTSD symptoms. Regardless of how Criterion A is officially defined, investigators can and should empirically evaluate the impact of alternative definitions on the prevalence of trauma

exposure and PTSD, if they include explicit operational definitions so that others can critique or attempt to replicate their findings.

In this regard, the available empirical evidence is informative. For example, Kilpatrick et al. (1998) found that PTSD was rare among respondents who reported only low-magnitude (non-Criterion A) events. Of 66 such respondents, only 8 met the symptom criteria for PTSD, 6 of whom experienced an event involving death or serious illness, and thus arguably may have met Criterion A. Only 2 respondents met the symptom criteria for PTSD based on events that would clearly not meet Criterion A, being fired from a job and going through a divorce. This suggests there may be a convergence of conceptual and empirical approaches, with both pointing to a natural threshold of stressor severity, albeit somewhat inexact, above which the risk for PTSD emerges and below which the risk for PTSD tails off markedly.

However, there are instances in which the symptoms of PTSD develop following an apparently low-magnitude event, and these need to be accounted for within any comprehensive definition of Criterion A specifically, and PTSD more generally. In our view, *DSM-IV* provides adequate guidance and diagnostic coverage in this regard. For example, with respect to the two low-magnitude cases described in the previous paragraph, in the absence of further information and following *DSM-IV*, we would consider these events to not meet Criterion A, and would consider the appropriate diagnosis to be adjustment disorder, not PTSD.

Further, and more directly relevant to the issue of bracket creep, other investigators have argued that PTSD would be the appropriate diagnosis in the case of symptoms resulting from seemingly non-Criterion A stressors such as extramarital affairs (Dattilio, 2004) and sexual harassment (Avina & O'Donohue, 2002). In general we agree with those who have criticized such arguments as leading to an excessively broad definition of trauma (e.g., McNally, 2004; Monson, Stevens, & Schnurr, 2004). In addition, we are troubled by examples such as Avina and O'Donohue's explication of the highly ambiguous "threat to physical integrity" to justify some forms of sexual harassment as

meeting Criterion A. This strikes us as an excessively narrow focus on one of the most problematic and atypical aspects of Criterion A, and the fact that such an extensive rationale is required is a good indicator that the argument stretches well beyond the original conceptualization of trauma.

However, we are also concerned that some of this debate has occurred at the level of the event category. This raises the issue of what Dohrenwend (2006) has referred to as intracategory variability in the assessment of stressful life events, which he defines as "the fact that a variety of types of experiences are encompassed by each particular event category" (p. 478). That is, specific events within a category vary considerably in severity, such that some events might meet Criterion A, but others would not. Thus, in debating whether a stressor meets Criterion A, it would be more constructive to focus on specific events rather than on category labels, and to not promote or dismiss entire categories because specific events within the category do or do not constitute a trauma. This includes controversial categories such as sexual harassment (encompassing events ranging from hearing inappropriate comments to being sexually assaulted) as well as well-accepted, widely studied categories such as motor vehicle accidents (encompassing events ranging from a minor fender-bender to a pileup with fatalities).

In sum, despite its limitations we see Criterion A in *DSM-IV* (and now *DSM-IV-TR*, APA, 2000, in which the Criterion A language is unchanged from *DSM-IV*) as a reasonable, viable definition of a trauma. It provides relatively explicit guidelines for distinguishing traumatic from nontraumatic stressors, but also allows for clinical judgment by not being overly prescriptive, and thus provides a pragmatic standard for the field of traumatic stress. Regarding concerns about bracket creep, there are two safeguards in *DSM-IV* that if taken seriously and used appropriately could help prevent the excessively broad application of the concepts of trauma exposure and PTSD. One is the spirit of the definition of a trauma, reflected in the explicit emphasis in the criterion language and accompanying text that qualifying events entail personal involvement with, if not direct exposure to, catastrophic life events (e.g., passages 3.1 and 3.5 in Table 3). Considered together, the criterion

language and text provide a sufficiently clear threshold for deciding whether a given stressor qualifies as traumatic. In our view, such a holistic perspective is crucial and can help prevent excessive broadening that might occur as a result of a narrow, selective focus on one or more ambiguous aspects of Criterion A.

The other safeguard is the two-part, conjunctive definition of Criterion A in combination with the remaining diagnostic criteria for PTSD. Criterion A2 constrains the number of PTEs that qualify as TEs, and the remaining criteria (B–F) constrain the number of persons exposed to a TE who qualify for a PTSD diagnosis. That is, the diagnostic criteria for PTSD consist of a series of accumulating requirements that create an increasingly specific diagnostic rule at each stage. In fact, because the stressor criterion serves as a “gatekeeper” for PTSD, in that it is the initial and fundamental requirement for the diagnosis, it is appropriate for it to have high sensitivity, thereby minimizing false negatives and not ruling out at this early stage anyone who might possibly have the diagnosis. The remaining criteria must then be applied appropriately to rule out those who do not meet the diagnosis. Thus, the desired outcome of a sufficiently specific diagnosis of PTSD is a function of all the criteria conjointly and does not rely entirely on Criterion A1.

The Role of Criterion A2

Before concluding this section on defining trauma, further discussion of Criterion A2 is warranted. A growing number of studies have empirically examined the impact of A2, which is important because the decision to include A2 was made largely on conceptual grounds and because it represents the greatest departure from previous versions of Criterion A. Two recent studies are particularly informative with respect to questions regarding the prevalence of Criterion A2, the relationship between Criteria A2 and A1, and the impact of Criterion A2 on the prevalence of PTSD.

First, in the study of *DSM-IV* Criterion A described above, Breslau and Kessler (2001) found that Criterion

A2 was common following an A1 event, with 76.5% of A1 events resulting in Criterion A2. Criterion A2 varied as a function of the type of Criterion A1 event, especially in men, and women were more likely than men to meet Criterion A2 overall. In addition, Criterion A2 attenuated the prevalence of trauma exposure from 89.6% based on Criterion A1 alone to 77.6% based on the two-part Criterion A. Further, Criterion A2 had little impact on the prevalence of PTSD, primarily because the Criterion A1 events that resulted in a PTSD diagnosis virtually always met Criterion A2 as well. Following the two-part definition, the conditional probability of PTSD increased minimally from 9.2% for events that met Criterion A1 only, to 12% for events that met both Criteria A1 and A2. Breslau and Kessler concluded that “The finding, however, that only very few A1 stressors that did not involve the A2 response lead to PTSD suggests that instead of defining the emotional response as a component of the stressor, it might be more appropriate to define it as a separate criterion—an acute response necessary for the emergence of PTSD” (p. 703). They further suggested that one potential use of Criterion A2 is as screening measure for early identification of trauma survivors who are unlikely to develop PTSD, so that resources can be directed to others who are at greater risk.

Second, in an investigation of trauma and PTSD in older men (World War II and Korean veterans from the Boston VA Normative Aging Study), Schnurr, Spiro, Fendler, and Hamblen (2002) reached many of the same conclusions regarding Criterion A2 as did Breslau and Kessler. Prevalence of exposure to events meeting Criterion A1 only was nearly universal, with 96.2% of the sample reporting at least one such event. Adding Criterion A2 attenuated the prevalence of exposure, such that 79% of the sample reported at least one event that met both Criteria A1 and A2. The conditional probability of Criterion A2 varied as a function of trauma type, ranging from slightly more than 50% for violent death of a loved one, life-threatening illness, and disaster, to more than 70% for combat and nearly 80% for sexual assault. This variability is consistent with Breslau and Kessler (2001) because Schnurr et al. studied a sample of men.

For several event types, especially war-zone exposure, disaster, and life-threatening illness, Schnurr et al. found that events that met Criteria A1 and A2 were associated with greater PTSD symptom severity than were events that met Criterion A1 only. However, they found that requiring Criterion A2 had no impact on PTSD prevalence. This finding may be due, in part, to a floor effect because of the very low prevalence of current PTSD ($\leq 1\%$). However, it is consistent with the results of Breslau and Kessler (2001) and again suggests that Criterion A1 events that result in a diagnosis of PTSD almost always meet A2 as well.

In an effort to resolve an apparent discrepancy between their findings and those of Brewin et al. (2000), Schnurr et al. computed positive and negative predictive values for predicting PTSD from Criterion A2 based on Brewin et al.'s results. They found that Criterion A2 had a low positive predictive value (.34), meaning that the presence of Criterion A2 is a weak indicator of the presence of PTSD. However, they found that A2 had a very high negative predictive value (.95), meaning that the absence of A2 is a strong indicator of the absence of PTSD. Echoing the conclusion of Breslau and Kessler (2001), Schnurr et al. suggested that although Criterion A2 may not be effective for identifying those at risk for developing PTSD, Criterion A2 may still be useful: "For screening purposes with recent trauma victims, A2 may have much greater utility in helping to rule out individuals who are unlikely to develop PTSD, thereby permitting scarce resources to be allocated to individuals who are in greater need" (p. 185).

Clearly, more research is needed to clarify the role of Criterion A2. However, regardless of the original conceptual rationale for including Criterion A2, the empirical literature to date suggests several conclusions regarding how Criterion A2 actually functions. First, owing logically to the conjunctive nature of the two-part Criterion A, Criterion A2 attenuates the prevalence of trauma exposure, such that TEs are less prevalent than PTEs. Second, the conditional probability of Criterion A2 given Criterion A1 varies as a function of the type of stressor, particularly in men. That is, some stressors are more likely to trigger Criterion A2 responses, just as some stressors are more likely to result in PTSD. Third, the presence of Criterion A2 provides little

information about the presence of PTSD, but the absence of Criterion A2 strongly indicates the absence of PTSD.

MEASURING TRAUMA

Instrumentation

In the last 20 years, there has been considerable progress in the development of assessment instruments for measuring PTSD. There are dozens of self-report and interview measures now available, and several have been sufficiently well investigated as to be considered psychometrically mature. However, far less progress has been made with respect to measuring trauma exposure. As with PTSD measures, there has been a proliferation of trauma measures, but many were created on an ad hoc basis for a specific study and have not been adopted more broadly by the field. Until recently, the development of trauma measures has been characterized by inadequate attention to standard psychometric procedures. In particular, with few exceptions there has been notable lack of content validation (cf. Haynes, Richard, & Kubany, 1995), few attempts to corroborate self-reported exposure objectively, and little if any replication of preliminary psychometric findings.

Several factors may have contributed to this relatively slow progress in the assessment of trauma exposure. First, as discussed above, trauma is difficult to define, and the official definition has been somewhat of a moving target. Second, when PTSD was first introduced, the assessment goal tended to be simply establishing that a trauma had occurred and identifying an index event for symptom inquiry; there was less concern with quantifying degree of exposure or quantifying lifetime exposure to different types of trauma. Over time, the impetus for developing continuous measures of trauma exposure emerged from several sources, including an interest in examining the dose-response relationship between trauma and PTSD, a shift in the conceptualization of trauma from a categorical to a dimensional perspective, and a growing recognition of the impact of trauma across the lifespan.

Third, there are a number of conceptual and practical challenges in developing an adequate measure of trauma.

Investigators need to address a number of questions: What is the intended purpose of the instrument, i.e., is it a brief screener or a more comprehensive measure? What is the intended content domain for the instrument, i.e., will it measure aspects of a specific trauma type or measure exposure to the full range of traumatic events? Will it assess Criterion A explicitly or measure the core aspects of a given trauma type regardless of its precise correspondence with Criterion A? How many event types will be included and how will they be defined and distinguished? What dimensions of exposure (e.g., life threat, physical injury) will be evaluated, and what response formats (e.g., frequency, severity) will be used for each dimension? How will it be administered, as a questionnaire or as an interview? How will it be scored and what variables will it yield?

To date, investigators have tended to address some but not all of these questions, and rarely have collected sufficient psychometric data to justify broader acceptance of the measure. Each of these questions is associated with a number of thorny issues and difficult choices; thus it understandable that investigators would opt for pragmatic compromises, developing measures that serve their immediate need rather than adequately addressing the inherent complexity and thus meeting a larger need in the field. However, an unfortunate result is an abundance of inadequately constructed measures, a lack of consensus regarding the measures for a standard battery, and a resulting isolation of empirical findings due to a lack of a common metric. What is needed are well-constructed, carefully validated measures that can be adopted broadly and thereby increase the comparability of findings across studies. Given the unique characteristics of different trauma types and the unique demands of various assessment tasks it may be that specific measures are needed for each major category (e.g., combat, sexual assault, motor vehicle accident, natural disaster) and task (e.g., screening, comprehensive assessment of lifetime trauma). Currently, however, there is not even a consensus within the various trauma types.

It is beyond the scope of this article to review specific instruments (see Briere, 2004; Carlson, 1997). However, we point to several recent examples that illustrate conceptually and empirically sound instrument development, particu-

larly with respect to the crucial task of content validation. The first example is the Traumatic Life Events Questionnaire (TLEQ; Kubany et al., 2000), a questionnaire that assesses lifetime exposure to PTEs in 21 specific categories and one nonspecific category. The TLEQ underwent perhaps the most rigorous content validation process of any measure of trauma exposure, with multiple stages of empirical evaluation and revision. Kubany et al. describe a series of five studies with a variety of populations, which ensured both the replicability and generalizability of the findings. Careful attention was given to item content, response format, and reading level. The final scale provides excellent coverage of a wide range of PTEs and also evaluates Criterion A2 for each PTE reported.

The second example (McHugo et al., 2005) involves a thorough evaluation and revision of an existing measure, the Life Stressor Checklist-Revised (LSC-R; Wolfe & Kimerling, 1997) to adapt it for use in a population of women with substance abuse, other mental disorders, and a history of interpersonal violence. McHugo et al. provide a detailed rationale for the choice of instrument and the modifications they felt were needed. Content validation was based on expert judgment and feedback from a workgroup consisting of investigators, clinicians, and women from the target population. Further, responses to an open-ended question were extensively analyzed, which led to six additional recommendations for further revision of the LSC-R. The McHugo et al. study is an outstanding example of the conceptual and empirical work required to construct and evaluate a psychometrically sound measure of trauma exposure, and we recommend it as a model for other investigators.

The last example is the Evaluation of Lifetime Stressors (ELS; Krinsley, Gallagher, Weathers, Kutter, & Kaloupek, 2003), a multimethod trauma assessment protocol consisting of a screening questionnaire (ELS-Q) and a corresponding interview (ELS-I). The primary purpose in developing the ELS was to create a comprehensive measure of lifetime trauma exposure that would incorporate the strengths of both self-report and interview modalities. As with the previous examples, the ELS underwent extensive content validation. The initial item pool and response formats were

based on a review of existing measures, a review of the trauma literature more broadly, consideration of *DSM-IV* Criterion A, consideration of a dimensional perspective of trauma, and expert judgment. The initial empirical evaluation was conducted by a team of interviewers who trained and calibrated together through extensive discussion regarding coding of reported events. This resulted in a manual describing standardized procedures for administration and scoring of ELS protocols. The main limitation is that it can take as long as 1–3 hours to administer, depending on the complexity of a respondent's trauma history.

Reliability of Self-Reported Trauma Exposure

The final measurement issue we will consider has to do with concerns about the reliability or consistency of reports of trauma. Every study that has examined test-retest reliability of self-reported trauma exposure has found some degree of inconsistency, regardless of the retest interval, the type of trauma being assessed, or how broadly or narrowly an event in a given item is defined. Although some degree of unreliability is expected with virtually any psychological measurement, it is particularly troubling with measures of trauma exposure, for which concerns about reliability are also in some sense concerns about validity. That is, for self-reports of trauma exposure, theoretically at least, there is an ultimate criterion: the events reported happened or they did not, so that inconsistent responding becomes invalid in the sense that, for unambiguous items at least, no and yes cannot both be correct.

Beyond this basic concern, though, some studies have found evidence of increased reports of exposure on repeated administrations of a trauma measure and have shown that increases in reports of exposure are associated with PTSD symptom severity (e.g., Roemer, Litz, Orsillo, Ehlich, & Friedman, 1998; Southwick, Morgan Nicolaou, & Charney, 1997). There are a number of understandable reasons reports of exposure might be inconsistent (e.g., ambiguously worded items, temporary factors such as fatigue, distraction, or lack of motivation and involvement in the assessment task) and there are good reasons why reports might tend to increase more than decrease (memory

search prompted by initial assessment, exposure to new information in the retest interval, greater level of comfort with the assessment task and thus greater disclosure).

The main concern, though, is why increases in reports of exposure would be associated with PTSD severity. If reports of exposure and PTSD symptom severity are confounded this could inflate the correlation between these variables and make it difficult to determine the dose-response relationship between exposure and PTSD accurately, the existence of which is a basic assumption in the current conceptualization of PTSD. Further, it raises the possibility that some respondents could be deliberately exaggerating their reports of both exposure and PTSD, which is always a possibility in the assessment of PTSD in any context in which there is some incentive to malingering.

Fortunately, when the directionality of this relationship is examined in an appropriate statistical analysis, PTSD appears to exert only a very small influence on reports of exposure. King et al. (2000) used a cross-lagged analysis of a longitudinal panel design with a large sample of Gulf War veterans who were assessed within 5 days of returning from the war-zone and then again 18 to 24 months later. King et al. concluded that “there is a slight tendency toward amplification of traumatic accounts that may be attributed to PTSD symptom severity” (p. 631), but that this effect, which was statistically significant only in men, “was of such small magnitude as to be considered trivial” (p. 632). What is needed at this point is more research to try to determine the factors that influence inconsistency of reports of trauma exposure. One straightforward strategy would be to debrief respondents after a follow-up assessment and ask them why they changed their answer. This approach could be helpful in revising items and modifying assessment procedures to enhance reliability.

CONCLUSION

The essential tasks of defining and measuring trauma involve a number of extraordinarily complex challenges, and many of the core issues are as yet unresolved. However, the debate surrounding the Criterion A problem has led to an increasingly well-articulated conceptual

understanding of psychological trauma and an increasingly sophisticated measurement technology: We are encouraged by the progress that has been made thus far. Although there is room for improvement, we view the *DSM-IV* version of Criterion A as a feasible definition of trauma that when appropriately applied can effectively serve a wide range of clinical and research needs. Further, although much work remains, there are promising recent advances in the development of psychometrically sound measures of trauma exposure. Ultimately, such progress will enhance the scientific understanding of the effects of trauma and foster the development of clinical methods to ease the suffering of those who have experienced catastrophic life events.

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